

SDMS Doc ID 2000779

The Boeing Company 6633 Canoga Avenue P.O. Box 7922 Canoga Park, CA 91309-7922

2000779

#### **CERTIFIED MAIL**

February 17, 2003 In reply refer to 2003RC0381

Gerard Abrams
Calif. Environmental Protection Agency
Dept. of Toxic Substances Control
Region 1
Facility Permitting Branch
8800 Cal Center Drive
Sacramento CA 95826-3200

Subject: Santa Susana Field Laboratory Corrective Action Program Quarterly

Progress Reports for EPA ID Numbers CAD093365435 (Rocketdyne),

CA1800090010 (NASA) and CAD000629972 (DOE)

Dear Mr. Abrams:

The Boeing Company, Rocketdyne (Rocketdyne) has enclosed the following progress reports as required by Hazardous Waste Facility Post-Closure Permits for Rocketdyne and NASA at the Santa Susana Field Laboratory (SSFL). In addition, Rocketdyne has included a progress report for the DOE Corrective Action sites in Area IV. Rocketdyne has submitted the reports in the format as it appears in Attachment I of the Rocketdyne and NASA permits. This reporting period is from November 16, 2002 through February 15, 2003.

Should you have any comments, please do not hesitate to let me know. I can be reached at (818) 586-5695.

Sincerely,

Art Lenox

**Environmental Remediation** 

AJL:bjc Enclosures

(SHEA-096873)

G. Abrams (2003RC0381) February 17, 2003 Page 2

A. Elliott/NASA	(with enclosures)
D. Hambrick/MWH	(with enclosures)
T. Chauvel/DTSC	(with enclosures)
S. Baxter/DTSC	(with enclosures)
P. Batarseh/DTSC	(with enclosures)
P. Bailey/DTSC	(with enclosures)
K. Baker/DTSC	(with enclosures)
M. Lopez/DOE/OAK	(with enclosures)
J. Beach/EPA	(with enclosures)
R. Marshall/CSUN, Oviatt Library	(with enclosures)
D. Redfield/Simi Valley Library	(with enclosures)
J. Metzler/LA Public Library, Platt Branch	(with enclosures)
	D. Hambrick/MWH T. Chauvel/DTSC S. Baxter/DTSC P. Batarseh/DTSC P. Bailey/DTSC K. Baker/DTSC M. Lopez/DOE/OAK J. Beach/EPA R. Marshall/CSUN, Oviatt Library D. Redfield/Simi Valley Library



# Santa Susana Field Laboratory RFI and CMS Projects Quarterly Progress Report EPA ID No. CAD000629972 (Department of Energy)

Rocketdyne Project Manager: Art Lenox

Contractor Project Manager: Dixie Hambrick

Report Period: November 16, 2002 – February 15, 2003

## 1. PROGRESS MADE THIS REPORT PERIOD

Limited soil sampling was performed this period at DOE RCRA Facility Investigation (RFI) sites. Montgomery Watson Harza (MWH) collected 1 soil matrix sample at 1 DOE site during this reporting period (Table 1). Soil matrix sample analysis was conducted by Ceimic Laboratories, a California-certified laboratory located in Rhode Island. To date, approximately 46 soil vapor (46 analyses) and 229 soil matrix/surface water samples (807 analyses) have been collected from DOE locations during the RFI program (Table 2).

Limited field work for the near-surface groundwater investigation continued this period. Transducers installed at representative DOE shallow piezometer locations were also monitored, and proposed locations of new piezometers were discussed with DTSC. To date, approximately 27 groundwater samples (93 analyses) have been collected from DOE locations during the RFI program (Table 2). Preparation of an update to the August 2001 Shallow Groundwater Technical Memorandum (TM) describing Fall 2000/Spring 2001 investigation findings continued this period. The TM is being updated to include Fall 2001/Spring 2002 results.

Results of spring and seep sampling conducted in June and October 2002 were validated and preparation of a Technical Memorandum began.

Preparation of the draft Building 100 Trench (SWMU 7.5), Metals Laboratory Clarifier (Area IV AOC), and Old Conservation Yard (SWMU 7.4) RFI reports continued.

DTSC, Rocketdyne, and MWH met several times this period to discuss near-surface groundwater and soil investigations, risk assessments, DTSC Hazardous Materials Laboratory (HML) data validation of the RFI samples, preliminary draft RFI reports and the RFI report schedule.

Validation of recent soil samples and conducting a program quality assurance (QA) review of soil sampling data are ongoing.

Infiltration monitoring continued at FSDF (SWMU 7.3) this period.

# 2. SUMMARY OF FINDINGS

Near-surface groundwater levels rose slightly following rains during December 2002. Total petroleum hydrocarbons (TPH) and polycyclic aromatic hydrocarbons (PAHs) were detected in the samples collected from the Old Conservation Yard RFI site.

#### 3/4 SUMMARY OF PROBLEMS/ACTIONS TAKEN

DTSC continued an independent evaluation of the Columbia Analytical Services (CAS) Laboratory RFI data.

# 5. PROJECT ACTIVITY NEXT PERIOD

Boeing will be involved with the following RFI activities during the next period:

- Continue to download transducer data at shallow piezometers
- Complete preparation of the updated near-surface groundwater TM
- Install new shallow piezometers at 4 locations and collect groundwater samples
- Complete spring and seep sampling report
- Complete draft Metals Clarifier (AOC), Building 100 Trench (SWMU 7.5), and Old Conservation Yard (SWMU 7.4) RFI reports and submit to DTSC
- Finalize the draft Surficial OU SRAM, Revision 1
- Continue FSDF infiltration monitoring
- Revise Building 56 Landfill investigation work plan

## 6. PERSONNEL CHANGES

None.

# 7. SUMMARY OF CONTACTS

None.

## 8. TREATMENT SYSTEM EFFECTIVENESS

No soil remediation treatment systems are in place or operational at this time.

# 9. DATA REPORTS SUBMITTED

Perchlorate Source Evaluation and Technical Report, Santa Susana Field Laboratory, Ventura County. October.

Table 1 DOE Sampling Summary November 16, 2002 - February 15, 2003

UNIT	Facility	MATRIX	Total Samples	Total Analyses	TPH, 8015/BM	PAH, 429M
SWMU 7.4	Old Conservation	S	1	2	1	1
Total Soil			1	2	1	1
TOTAL			1	2	1	1
S = Soil	V = Vapor					
W = Water	GW = Near-Surface	Groundwater	•			
Note - includes QA san	nples (water, soil, vap	or); does not	include sampl	es on hold.		

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RFI Soil Matrix Sampling Analysis	Summary			<b>*</b>			+ -	• ~ -	<b></b>	•				•		-• ·		+-·					<b>.</b>		•				l	<u>.</u>		:		
OWNER/OPERATOR	Total Samples	s Total Anaytses	VOA, 8260	TPH, 8015 VOA, 8021A	SVOA, 8270SIM	SVOA, 8270	Metals, 6010/7000 Mercury, 7471A	Methy! Mercury	Silver, 7781	Lead	Beryllium	Hex Cr, 7196	Flourida, 340 2 ANIONS, 300	PH, 9040/3045	PCBs, 8080/8082	PCBs, 1668	Form, ASTMD19	Perchlorate, 300M	independent of the control of the co	Dloxin, 1613B	Hydrazina	Ordnance, 8330	SPLP, 1312	Asbestos	UPIDS	700	Arsenia	PAH, 8310 1,4-Dloxans, 8260SIM	Gross Alpha/Beta, 900 0	Gamma Spec, 901 1	Deuterlum	Oxygen 18	TDS	PAH, 429M
Rocketdyne	2757		179	1092 646	646	92 8	22 59	3	10	2	2	84	175 18	4 737	7 121	18	193	255 2	1:	0 10	14	130	78	0	2	8	1	2 11	5	5	5	5	5	5
NASA DOE	768 229	1232	80	370 153 147 50	3 84	18 1	38 72	2	20	0	0	10	10 19		40	8	16		) 5	0 11			5	5	0	3	0	1 13	7	7 2	5 2	5 2		10
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RFI Biotic Sampling Analysis Summ	nary					·																		t-									-	$\dashv$
owner/operator .	Total Samples	Total Analyses	SVOC, 8270CSIM	Metals, 6010B/7471/ " "" "" "" "" " PCBs, 1668	Dloxin, 1613B	LIPIDS	:	1	;	:		***********		1	:		1	:		TORREST AND		;	1	2	1	:	1	: :						
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# Santa Susana Field Laboratory RFI and CMS Projects Quarterly Progress Report EPA ID No. CA1800090010 (NASA)

Rocketdyne Project Manager:

Art Lenox

Contractor Project Manager:

Dixie Hambrick

Report Period:

November 16, 2002 - February 15, 2003

# 1. PROGRESS MADE THIS REPORT PERIOD

Limited soil sampling was performed this period at NASA RCRA Facility Investigation (RFI) sites. Montgomery Watson Harza (MWH) collected a total of 4 soil vapor and 11 soil matrix samples at 6 NASA sites during this reporting period (Table 1). Soil matrix sample analysis was conducted by Ceimic Laboratories, a California-certified laboratory located in Rhode Island. Soil vapor sample analysis was performed using TO-14A by Severn Trent Laboratories (a California-certified method for soil vapor analysis). To date, approximately 401 soil vapor (412 analyses) and 768 soil matrix/surface water samples (1232 analyses) have been collected from NASA locations during the RFI program (Table 2).

Limited field work for the near-surface groundwater investigation was conducted this period. Transducers installed at representative NASA shallow piezometer locations were monitored, and proposed locations of new piezometers were discussed with DTSC. To date, approximately 53 groundwater samples (81 analyses) have been collected from NASA locations during the RFI program (Table 2). Preparation of an update to the August 2001 Shallow Groundwater Technical Memorandum (TM) describing Fall 2000/Spring 2001 investigation findings continued this period. The TM is being updated to include Fall 2001/Spring 2002 results.

Results of spring and seep sampling conducted in June and October 2002 were validated and preparation of a Technical Memorandum began.

DTSC, Rocketdyne, and MWH met several times this period to discuss the RFI near-surface groundwater and soil investigations, risk assessments, DTSC Hazardous Materials Laboratory (HML) data validation of the RFI samples, preliminary draft RFI reports and the RFI report schedule.

Validation of recent soil samples and conducting a program quality assurance (QA) review of soil sampling data are ongoing.

## 2. SUMMARY OF FINDINGS

Near-surface groundwater levels rose slightly following rains during December 2002. Volatile organic compounds (VOCs), total petroleum hydrocarbons (TPH), and polycyclic aromatic hydrocarbons (PAHs) were detected in the samples collected from the Alfa/Bravo Fuel Farm, Coca/Delta Fuel Farm, ELV, Building 204, Alfa, and Bravo RFI sites.

## 3/4 SUMMARY OF PROBLEMS/ACTIONS TAKEN

DTSC continued an independent evaluation of the Columbia Analytical Services (CAS) Laboratory RFI data.

# 5. PROJECT ACTIVITY NEXT PERIOD

Boeing will be involved with the following RFI activities during the next period:

- Continue data validation for NASA sites
- Continue to download transducer data at shallow piezometers
- Complete preparation of the updated near-surface groundwater TM
- Complete spring and seep sampling report
- Finalize the draft Surficial OU SRAM, Revision 1

# 6. PERSONNEL CHANGES

None.

## 7. SUMMARY OF CONTACTS

None.

# 8. TREATMENT SYSTEM EFFECTIVENESS

No soil remediation treatment systems are in place or operational at this time.

# 9. DATA REPORTS SUBMITTED

No reports were submitted during this period.

Table 1 NASA Sampling Summary November 16, 2002 - February 15, 2003

UNIT	Facility	MATRIX	Total Samples	Total Analyses	VOA, TO-14	VOA, 8260	ТРН, 8015	SVOA, 8270SIM	PAH, 429M
Area II AOC	Alfa/Bravo FF	S	3	7	0	2	3	0	2
Area II AOC	Alfa/Bravo FF	V	1	1	1	0	0	0	0
Area II AOC	Coca/Delta FF	S	2	5	0	1	2	0	2
Area II AOC	Coca/Delta FF	V	2	2	2	0	0	0	0
SWMU 5.2	ELV (CTL-II)	S	1	2	0	0	1	0	1
SWMU 5.5/AOC	B204 USTs	S	1	2	0	0	1	0	1
SWMU 5.9/10/11	Alfa Area	S	2	4	0	0	2	0	2
SWMU 5.13/14/15	Bravo Area	S	2	6	0	1	2	1	2
SWMU 5.13/14/15	Bravo Area	V	1	1	1	0	0	0	0
Total Soil		S	11	26	0	4	11	1	10
Total Soil Vapor		V	4	4	4	0	0	0	0
TOTAL			15	30	4	4	11	1	10
S = Soil	V = Vapor by Method TO	)-14A							
W = Water	GW = Near-Surface Grou	undwater					•		
Note - includes QA samples (	(water, soil, vapor); does i	not include	samples on ho	ld.					

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RFI Soil Matrix Sampling Analysis S	Summary		4						<b>.</b>	<b></b>	s											~		<b>-</b>	~ + ····					<b>-</b>		.		_		
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owner/operator :	Total Samples	Total Analyses	SVOC, 8270CSIM	Metals, 6010B/7471	PCBs, 1868	Dioxin, 1613B	LIPIDS	2	10 113 140 tel 10000 Prince	* * ***********************************		:	:	·	:	1 1111111111111111111111111111111111111	1	1	7	1						·····	3	2		į.						
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Notes Includes all Ogden/MWH samples at R	iFI sites - June i	96 thru present								· · · · · · · · · · · · · · · · · · ·			+						- • -	*							- <del>-</del>			+	•					
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OWNER/OPERATOR	Total Samples	Total Analyses	,	TPH, 8015	SVOA, 8270SIM	Metals, 6010/7000	Arsenic	Perchlorate, 300M	1-4 Dloxane, 8260SI	Dloxin, 8290	Apha/Beta,	Gamma Spec, 901 1	Witrate	TDS	Ordnance, 8330	Hax Cr, 7196	:	:	1		¢				of was see (		- +		1							
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# Santa Susana Field Laboratory RFI and CMS Projects Quarterly Progress Report EPA ID No.CAD 093365435 (Rocketdyne)

Rocketdyne Project Manager: Art Lenox

Contractor Project Manager: Dixie Hambrick

Report Period: November 16, 2002 – February 15, 2003

#### 1. PROGRESS MADE THIS REPORT PERIOD

Limited soil sampling was performed at Rocketdyne sites this period for the RCRA Facility Investigation (RFI). Montgomery Watson Harza (MWH) collected a total of 4 soil vapor and 6 soil matrix samples at 2 Rocketdyne sites during this reporting period (Table 1). Soil matrix sample analysis was conducted by Ceimic Laboratories, a California-certified laboratory located in Rhode Island. Soil vapor sample analysis was performed using TO-14A by Severn Trent Laboratories (a California-certified method for soil vapor analysis). To date, approximately 1117 soil vapor (1204 analyses) and 2757 soil matrix/surface water samples (5823 analyses) have been collected from Rocketdyne locations during the RFI program (Table 2).

Limited field work for the near-surface groundwater investigation was conducted this period. Transducers installed at representative Rocketdyne shallow piezometer locations were monitored, and proposed locations of new piezometers were discussed with DTSC. To date, approximately 130 groundwater samples (226 analyses) have been collected from Rocketdyne locations during the RFI program (Table 2). Preparation of an update to the August 2001 Shallow Groundwater Technical Memorandum (TM) describing Fall 2000/Spring 2001 investigation findings continued this period. The TM is being updated to include Fall 2001/Spring 2002 results.

Results of spring and seep sampling conducted in June and October 2002 were validated and preparation of a Technical Memorandum began.

Preparation of the draft B-1 Area (SWMU 4.1) and Instrument and Equipment Laboratories (SWMUs 4.3, 4.4) RFI reports began.

DTSC, Rocketdyne, and MWH met several times this period to discuss the RFI near-surface groundwater and soil investigations, risk assessments, DTSC Hazardous Materials Laboratory (HML) data validation of the RFI samples, preliminary draft RFI reports and the RFI report schedule.

Validation of recent soil and water samples and conducting a program quality assurance (QA) review of soil sampling data are ongoing.

RFI Quarterly Progress Report EPA No. CAD093365435 (Areas I, III and IV) November 16, 2002 – February 15, 2003

## 2. SUMMARY OF FINDINGS

Near-surface groundwater levels rose slightly following rains during December 2002. Volatile organic compounds (VOCs), total petroleum hydrocarbons (TPH), and polycyclic aromatic hydrocarbons (PAHs) were detected in the samples collected from the B-1 and Bowl RFI sites.

## 3/4 SUMMARY OF PROBLEMS/ACTIONS TAKEN

DTSC continued an independent evaluation of the Columbia Analytical Services (CAS) Laboratory RFI data.

# 5. PROJECT ACTIVITY NEXT PERIOD

Boeing will be involved with the following RFI activities during the next period:

- Continue data validation for Rocketdyne sites
- Continue to download transducer data at shallow piezometers
- Complete preparation of the updated near-surface groundwater TM
- Install new shallow piezometers at 2-3 locations and collect groundwater samples
- Complete spring and seep sampling report
- Finalize the draft Surficial OU SRAM, Revision 1

## 6. PERSONNEL CHANGES

None.

## 7. SUMMARY OF CONTACTS

None.

## 8. TREATMENT SYSTEM EFFECTIVENESS

No soil remediation treatment systems are in place or operational at this time.

#### 9. DATA REPORTS SUBMITTED

Perchlorate Source Evaluation and Technical Report, Santa Susana Field Laboratory, Ventura County. February.

# Table 1 Rocketdyne Sampling Summary November 16, 2002 - February 15, 2003

UNIT	Facility	MATRIX	Total Samples	Total Analyses	VOA, TO-14	VOA, 8260	TPH, 8015	SVOA, 8270SIM	Metals, 6010/7000	PAH, 429M
SWMU 4.1	B-1 Area	S	2	7	0	2	2	1	1	1
SWMU 4.1	B-1 Area	V	2	2	2	0	0	0	0	0
SWMU 4.15/AOC	Bowl Area	S	4	12	0	3	4	1	0	4
SWMU 4.15/AOC	Bowl Area	V	2	2	2	0	0	0	0	0
Total Soil		S	6	19	0	5	6	2	1	5
Total Soil Vapor		V	4	4	4	0	0	0	0	0
TOTAL			10	23	4	5	6	2	1	5
	V = Vapor by Method TO-14									
	GW = Near-Surface Ground						w			
Note - includes QA	samples (water, soil, vapor)	; does not in	clude samples o	on hold.						

RFI Soil Matrix Sampling Analysis S	Summary	ļ
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OWNER/OPERATOR	Tory Sasking Ports (1997)  Tory Sasking Ports (1997)  Tory Sasking Ports (1997)  Tory Sasking Sasking Sasking Ports (1997)  Tory Sasking Saski	PAH,
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Rocketdyne NASA	768 1232 80 370 153 84 18 138 72 2 20 0 0 10 10 19 64 40 8 16 7 0 50 11 0 1 5 5 0 3 0 1 13 7 7 5 5	8 10
DOE	229 807 11 147 50 101 13 149 0 0 1 0 0 2 17 9 118 50 1 0 35 0 52 0 0 4 6 32 0 0 0 0 0 2 2 2 2	1 1
Total	0.00 044 07 000 044 07 000 044	14 16
Notes		
	No Eco Samples	
	No background samples	
	No samples on hold	
Includes all Ogden/MWH samples at F	RR sites - June 96 thru present	
		[
RFI Soil Vapor Sampling Analysis S	Summary	
Total Active		
SV	Total Active SV Total PSV Total SV Total SV	
Rocketdyne 1109	De 102 1198 8 1117 1206	
NASA 387	37 19 398 14 401 412	1
DOE . 46	6 0 46 0 46 46	
Total 1542	12 121 1642 22 1564 1664	
Notes		
Includes HGS, CAL analyses (no TEG	G Includes Gore analyses, no dilutions required	
Includes all Ogden/MWH samples at R	RFI sites - June 96 thru present	
Eight active SV analyses performed by	by Method TO-14A, all remaining analyses performed by Method 8260, modified for vapor	
l		
RFI Biotic Sampling Analysis Summ	mary	
1		1 1
	N	
	8270CSIM 6010B/747 1613B	
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1	Total Samples Total Analyses :	
OWNER/OPERATOR	Total Samples Total Analyses 60 T S O O T T O O O O O O O O O O O O O O	
Rocketdyne	20 42 8 0 12 2 20	
Rocketdyne NASA DOE	20 42 8 0 12 2 20 25 87 12 24 13 13 25 0 0 0 0 0 0 0	
DOE		11
Total	45 129 20 24 25 15 45	
Notes		+
Includes all Ogden/MWH samples at F	Tri sies - June 90 iniu present	+
RFI Near-Surface Groundwater Sam	<del>▗▕▃▗▗▗</del> ▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗	+
API Heal-Sulface Glodinaratel Sam	inpring Analysis outrinitary	┼
1	5 0	
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1		
1	0015 0015 0015 0000 0, 6010 0000 1, 7719 0000 1, 71900	1 1
	, 8260 , 8260 , 8015 , 8015 , 8015 , 1010xar , 1100xar ,	
OWNER/OPERATOR	Total Samples Total Analyses	
Rocketdyne	130 226 113 17 17 16 3 6 16 18 6 6 1 1 0 0 5 1	
NASA DOE	53 81 49 12 4 3 0 0 0 8 2 1 0 0 1 1 0 0	
DOE	27 93 22 10 6 8 0 1 1 0 0 15 15 15 0 0 0 0	
Total	210 400 184 39 27 27 3 7 17 26 8 22 16 16 1 1 5 1	
		L ]
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Notes		
Includes all Ogden/MWH samples at F	RFI sites - June 96 thru present	
Gross Alpha/Beta analyses from 2001	11 also included on table	
1		